EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 63247631
PUBLICATION DATE : 14-10-88

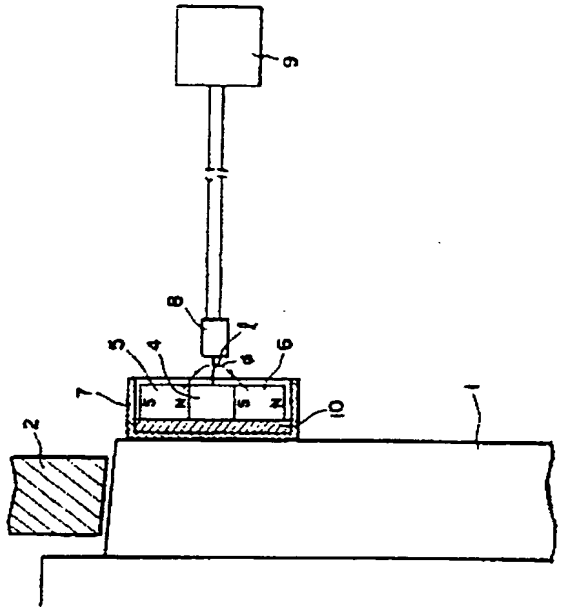
APPLICATION DATE : 02-04-87
APPLICATION NUMBER : 62081848

APPLICANT : NIPPON SIGNAL CO LTD:THE;

INVENTOR : OTSUKA MASAMICHI;

INT.CL. : G01K 7/36 G01K 13/08

TITLE : WHEEL TEMPERATURE DETECTOR



ABSTRACT : PURPOSE: To enable noncontact detection without causing performance deterioration due to the adverse influence of rainfall, snowfall, etc., by fitting a temperature sensing magnetic body and a permanent magnet which lose magnetism at specific temperature on the flank of a wheel by shielding magnetism, and providing a temperature sensor where a magnetic sensor is arranged at a spatial distance from the temperature sensing magnetic body.

CONSTITUTION: Permanent magnets 5 and 6 are arranged on both sides of the temperature sensing magnetic body 4, and those are put in a magnetic shield 7, whose bottom surface is fixed to the flank of the wheel 1. Then the magnetic sensor 8 is arranged at the spatial distance (l) from the magnetic body 4 without contacting it. Then when a brake shoe 2 is run by being pressed against the wheel 1 at the time of snowfall, etc., the wheel 1 raises up to temperature corresponding to the pressing pressure. The magnetic body 4 becomes a ferromagnetic body or loses its magnetism according to whether or not the temperature is below the curie point of the magnetic body 4, and the output of the magnetic sensor 8 becomes high or low. For the purpose, the curie point of the magnetic body 4 is selected according to the wheel temperature to be measured and the temperature of the wheel 1 can be detected.